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The effect of ginger and metoclopramide in the prevention of nausea and vomiting during and after surgery in cesarean section under spinal anesthesia

Hamideh Pakniat, MD[1], Fatemeh Lalooha, MD[1], Farideh Movahed, MD[1], Aynaz Boostan, MD[1], Marzieh Beigom Khezri, MD[2], Caleb Hedberg, DO[3], Mohammad Ali Hosseini, MD[4,5]

Departments of [1]Obstetrics and Gynecology, [2]Anesthesiology, Faculty of Medicine, Qazvin University of Medical Sciences, Qazvin, Iran; [3]Rocky Vista University College of Osteopathic Medicine, Parker, CO, USA; [4]Infertility and Reproductive Health Research Center, Shahid Beheshti Medical University, Tehran; [5]Student Research Committee, Qazvin University of Medical Sciences, Qazvin, Iran

Objective
Postoperative nausea and vomiting is one of the most common side effects after anesthesia in surgeries, such as cesarean section. This study aimed to investigate the effect of ginger and metoclopramide in the prevention of nausea and vomiting during and after cesarean section.

Methods
This clinical trial was conducted on 180 patients aged 18–40 years who underwent cesarean section under spinal anesthesia. The first group received 10 mg of metoclopramide via intravenous injection (metoclopramide group), and the second group received 1 g of oral ginger (ginger group) half an hour before spinal anesthesia. The frequency and severity of nausea and vomiting during surgery and at 2, 6, 12, and 24 hours postoperatively were compared in both groups. To analyze the results, the *t*-test, chi-square test, and Mann-Whitney test were used.

Results
There was no significant difference in the frequency of nausea and vomiting between the 2 groups during operation, 2 hours and 6 hours after surgery (P=0.182, 0.444 and 0.563 respectively). The severity of nausea and vomiting was also similar in the 2 groups (P=0.487 and 0.652 respectively); however, the metoclopramide group had a lower systolic blood pressure (P<0.001; df=2.176; f=18.66) and mean arterial pressure (P<0.001; df=2.176; f=6.36) than the ginger group.

Conclusion
The results revealed that ginger reduced nausea and vomiting to the same extent as metoclopramide in patients undergoing cesarean section.

Trial Registration
Iranian Center for Clinical Trials Identifier: IRCT201611028611N3

Keywords: Cesarean section; Spinal anesthesia; Metoclopramide; Ginger

Introduction

Cesarean section is one of the most common surgical procedures conducted on women. Cesarean delivery is the delivery of a fetus through an incision into the abdominal cavity (laparotomy) and uterine wall (hysterotomy) [1].

Currently, a large number of cesarean sections are per-

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Corresponding author: Fatemeh Lalooha, MD
Department of Obstetrics and Gynecology, Faculty of Medicine, Qazvin University of Medical Sciences, Shahid Bahonar Boulevard, Qazvin 34199-15315, Iran
E-mail: Lalooha44@yahoo.com
https://orcid.org/0000-0003-4241-7958